

Amendment
U.S. Appl. No.: **10/562,417**
Attorney Docket No. **LAV05006**

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended): ~~Method A~~ method for controlling the operation of a cylinder of an internal-combustion engine, the cylinder being provided with a combustion chamber which can be opened or closed at the intake and opened or closed at the exhaust, and at least one fuel injector, in which method, during the same operating cycle of the cylinder, the following phases are carried out:

- an opening phase at the exhaust between an exhaust opening time (OE) and an exhaust closing time (FE);

- a first opening phase at the intake between a first intake opening time (OA1) after the exhaust opening time (OE) and a first intake closing time (FA1);

- a second opening phase at the intake between a second intake opening time (OA2) and a second intake closing time (FA2);

- a fuel injection phase between an injection start time (OI) and an injection end time (FI);
and

- a combustion phase for the air/fuel mixture contained in the chamber (II),
wherein the exhaust closing time (FE) is between the first intake opening time (OA1) and the second intake opening time (OA2), and

wherein the first intake closing time (FA1) precedes the second intake opening time

Amendment
U.S. Appl. No.: 10/562,417
Attorney Docket No. LAV05006

(OA2).

2. (Currently amended): ~~Method~~-The method according to claim 1, wherein the first intake closing time (FA1) is after the exhaust closing time (FE).

3-4. (Canceled)

5. (Currently amended): ~~Method~~-The method according to claim 1, wherein the first intake closing time (FA1) precedes the injection start time (OI).

6. (Currently amended): ~~Method~~-The method according to claim 1, wherein the injection start time (OI) precedes the first intake closing time (FA1).

7. (Currently amended): ~~Method~~-The method according to claim 1, wherein the injection start time (OI) is between the first intake opening time (OA1) and the exhaust closing time (FE).

8. (Currently amended): ~~Method~~-The method according to claim 1, wherein the exhaust closing time (FE) precedes the injection start time (OI).

9. (Currently amended): ~~Method~~-The method according to claim 1, wherein the amplitude of the opening at the intake is adjusted so that the amplitude of the opening during the first opening

Amendment

U.S. Appl. No.: 10/562,417

Attorney Docket No. LAV05006

phase at the intake is different from the amplitude of the opening during the second opening phase at the intake.

10. (Currently amended): ~~Method-The method~~ according to claim 1, wherein the phases are carried out during each operating cycle of the cylinder.

11. (Currently amended): ~~Internal-combustion-engine-An internal-combustion engine~~ having at least one cylinder which is provided with a combustion chamber which can be opened or closed at the intake and opened or closed at the exhaust, and at least one fuel injector, wherein the cylinder operates in accordance with a method according to claim 1.

12. (Currently amended): ~~Motor-A motor~~ vehicle comprising an internal-combustion engine according to claim 11.

13. (Currently amended): ~~Method-The method~~ according to claim 2, wherein the first intake closing time (FA1) precedes the second intake opening time (OA2).

14. (Currently amended): ~~Method-The method~~ according to claim 2, wherein the second intake opening time (OA2) precedes the first intake closing time (FA1).

15. (Currently amended): ~~Method-The method~~ according to claim 2, wherein the first

Amendment

U.S. Appl. No.: 10/562,417

Attorney Docket No. LAV05006

intake closing time (FA1) precedes the injection start time (OI).

16. (Currently amended): ~~Method~~ The method according to claim 2, wherein the injection start time (OI) precedes the first intake closing time (FA1).

17. (Currently amended): ~~Method~~ The method according to claim 2, wherein the injection start time (OI) is between the first intake opening time (OA1) and the exhaust closing time (FE).

18. (Currently amended): ~~Method~~ The method according to claim 2, wherein the exhaust closing time (FE) precedes the injection start time (OI).

19. (Currently amended): ~~Method~~ The method according to claim 2, wherein the amplitude of the opening at the intake is adjusted so that the amplitude of the opening during the first opening phase at the intake is different from the amplitude of the opening during the second opening phase at the intake.

20. (Currently amended): ~~Method~~ The method according to claim 2, wherein the phases are carried out during each operating cycle of the cylinder.

21. (New): A method for controlling the operation of a cylinder of an internal-combustion engine, the cylinder being provided with a combustion chamber which can be opened or closed at

Amendment

U.S. Appl. No.: 10/562,417

Attorney Docket No. LAV05006

the intake and opened or closed at the exhaust, and at least one fuel injector, in which method, during the same operating cycle of the cylinder, the following phases are carried out:

- an opening phase at the exhaust between an exhaust opening time (OE) and an exhaust closing time (FE);
 - a first opening phase at the intake between a first intake opening time (OA1) after the exhaust opening time (OE) and a first intake closing time (FA1);
 - a second opening phase at the intake between a second intake opening time (OA2) and a second intake closing time (FA2);
 - a fuel injection phase between an injection start time (OI) and an injection end time (FI);
- and
- a combustion phase for the air/fuel mixture contained in the chamber (11),
- wherein the exhaust closing time (FE) is between the first intake opening time (OA1) and the second intake opening time (OA2), and
- wherein the first intake closing time (FA1) precedes the injection start time (OI).

22. (New): A method for controlling the operation of a cylinder of an internal-combustion engine, the cylinder being provided with a combustion chamber which can be opened or closed at the intake and opened or closed at the exhaust, and at least one fuel injector, in which method, during the same operating cycle of the cylinder, the following phases are carried out:

- an opening phase at the exhaust between an exhaust opening time (OE) and an exhaust closing time (FE);

Amendment

U.S. Appl. No.: **10/562,417**

Attorney Docket No. **LAV05006**

- a first opening phase at the intake between a first intake opening time (OA1) after the exhaust opening time (OE) and a first intake closing time (FA1);

- a second opening phase at the intake between a second intake opening time (OA2) and a second intake closing time (FA2);

- a fuel injection phase between an injection start time (OI) and an injection end time (FI);

and

- a combustion phase for the air/fuel mixture contained in the chamber (11),

wherein the exhaust closing time (FE) is between the first intake opening time (OA1) and the second intake opening time (OA2), and

wherein the injection start time (OI) is between the first intake opening time (OA1) and the exhaust closing time (FE).